

Working for the Self or Working for the Group: How Self- Versus Group Affirmation Affects Collective Behavior in Low-Status Groups

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Experiencing social identity threat can lead members of stigmatized groups to protect their self-regard by withdrawing from domains that are associated with higher status groups. Four experiments examined how providing identity affirmation in alternative domains affects performance motivation in status-defining domains among stigmatized group members. Two forms of identity affirmation were distinguished: self-affirmation, which enhances personal identity, and group affirmation, which enhances social identity. The results showed that although self- and group affirmation both induce high performance motivation, they do so in different ways. Whereas self-affirmation induces a focus on the personal self, group affirmation induces a focus on the social self (Study 1). Accordingly, group affirmation elicited high performance motivation among highly identified group members (Studies 1 and 2) by inducing challenge (Study 2) and protected interest in group-serving behaviors that improve collective status (Studies 3 and 4). By contrast, low identifiers were challenged and motivated to perform well only after self-affirmation (Studies 1 and 2) and reported an even stronger inclination to work for themselves at the expense of the group when offered group affirmation (Studies 3 and 4).

Keywords: social identity threat, self-affirmation, performance motivation, collective action, challenge versus threat

Being a member of a socially devalued group (e.g., women, ethnic minorities) can lead people to renounce their investment and performance motivation in domains that are associated with high societal status (e.g., academic achievement, leadership; Davies, Spencer, & Steele, 2005; Major & Schmader, 1998). Whereas most of the research on stigma and social identity has focused on stigmatized group members' well-being and coping strategies (Crocker, Major, & Steele, 1998; Rubin & Hewstone, 1998; Swim & Stangor, 1998), only recently has research started to focus on how members of stigmatized groups can remain invested and achieve high performance in domains that could lead them to achieve higher societal status (see, e.g., Cohen, Garcia, Apfel, & Master, 2006; Derks, Van Laar, & Ellemers, 2006, 2007a, 2007b; Martens, Johns, Greenberg, & Schimel, 2006). In the present research, we compare two strategies that are aimed at diminishing the detrimental effects of social identity threat and improving performance motivation in status-defining domains: self-affirmation (Steele, 1988), which is directed at restoring personal identity, and group affirmation (Derks et al., 2006; Sherman, Kinias, Major, Kim, & Prenovost, 2007), which is directed at

restoring social identity. We compare the motivational effects of self- and group affirmation and show that they differentially affect whether individuals will work for themselves (individual mobility) or for their group (collective status improvement). As such we show that self- and group affirmation differentially affect group outcomes.

Social Identity Threat and Motivation

For members of groups with lower societal status, performance settings that focus on domains in which high-status groups excel pose a threat to social identity by highlighting the negative stereotypes that exist about their group's low performance within these domains. Social identity threat impairs the performance of stigmatized group members in two ways. First, social identity threat *directly* reduces performance through a process called *stereotype threat*, which denotes an increased anxiety and cognitive load that interferes with performance. Second, identity threat can impair performance *indirectly* by lowering stigmatized group members' motivation and investment in domains in which their group is negatively stereotyped. In this article we focus specifically on how to prevent the self-protective withdrawal of performance motivation by members of devalued groups, rather than on how to lift the performance deficits caused by stereotype threat.

According to social identity theory (Tajfel & Turner, 1986) and work on stigma (Crocker et al., 1998) some of the strategies that group members use to improve their well-being and reduce their social identity concerns can seriously harm motivation to perform well in domains that lead to higher societal status. For example, disadvantaged group members may cope with social identity threat by leaving situations in which their group is devalued, such as when ethnic minorities drop out of academic settings or when

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women avoid traditionally male occupations (Davies et al., 2005). Alternatively, low-status group members may psychologically disidentify from those domains in which their group is negatively stereotyped (Crocker et al., 1998; Osborne, 1997; Schmader, Major, Eccleston, & McCoy, 2001). It is important to note that domains in which devalued groups are negatively stereotyped are often domains that define status in the social hierarchy. When stigmatized group members cope with their social identity concerns in ways that lower their motivation in these status-defining domains, social devaluation becomes a self-fulfilling prophecy that strengthens intergroup differences in the social hierarchy (Van Laar & Sidanius, 2001).

Although the detrimental effects of social identity threat on group members' well-being and involvement in status-defining domains are well documented, research is only beginning to examine how stigmatized group members can overcome these negative motivational effects and remain involved in status-defining domains. Recent research suggests that the negative effects of social identity threatening contexts on devalued group members' self-improvement motivation and performance are mitigated when group members are offered ways to boost their personal or social identity (Cohen et al., 2006; Derks et al., 2006; Martens et al., 2006). In the current research we extend this new line of research by systematically comparing the effects of strategies that affirm personal versus social identity on the performance motivation and willingness to work to improve the group's outcomes of high-versus low-identified group members.

Self-Affirmation

Given that a threat to stigmatized group members' social identity can lead to decreased performance motivation in status-defining domains, bolstering the self-concept with self-affirmation by providing positive performance feedback in other domains might lower stigmatized group members' need to withdraw from social identity threatening performance contexts. By reducing the need to use coping strategies that harm motivation in status-defining domains, we expect self-affirmation to improve devalued group members' motivation to strive for higher performance in these domains. Self-affirmation theory (Steele, 1988; Steele & Liu, 1983) argues that people are motivated to sustain a positive overall self-concept. When the self-concept is threatened, for example, owing to negative performance feedback, individuals are motivated to restore their self-concept. Self-regard, however, is not exclusively restored by addressing the specific threat (e.g., by reducing the psychological significance of the domain in which negative feedback was received). The self can also be affirmed by thinking about other, more positively valued aspects of the self-concept, for example, by focusing on high performance in other domains (Steele & Liu, 1983; Tesser & Cornell, 1991). We argue that when stigmatized group members experience failure in an important status-defining domain in which their group is negatively stereotyped, experiencing self-affirmation by emphasizing high performance in another domain restores their self-regard. This in turn reduces the need to address the specific threat by withdrawing from the performance situation or by devaluing this status-defining domain, allowing stigmatized group members to retain their performance motivation in the status-defining domain.

Although most research on self-affirmation focuses on restoring well-being rather than performance motivation, some support for this argument can be found in research examining effects of self-affirmation in performance settings. For example, Kurman (2003) showed that among college students self-affirmation was related to increased self-criticism, which in turn was related to higher academic motivation. Similarly, self-affirmation has been shown to reduce ruminative thinking after failure, which can impede future performance motivation (Koole, Smeets, Van Knippenberg, & Dijksterhuis, 1999), and to reduce defensive reactions to negative performance or health feedback (Harris & Napper, 2005; Sherman & Cohen, 2002). In this way, self-affirmation improves the chances that individuals will behave in ways that improve their performance or health outcomes. Of interest, self-affirmation has already been shown to lower the negative impact of stereotype threat on performance. For example, a simple self-affirmation exercise led to improved academic performance among African American high school students (Cohen et al., 2006) and improved math performance among women (Martens et al., 2006). In the same vein, allowing women experiencing stereotype threat to describe themselves as a unique person before taking a difficult math test successfully increased their math performance (Ambady, Paik, Steele, Owen Smith, & Mitchell, 2004). However, although self-affirmation seems to reduce the negative impact of social identity threat on well-being and performance, it has not been directly investigated whether self-affirmation also improves stigmatized group members' motivation in domains in which their group is negatively stereotyped (the *indirect* pathway from social identity threat to underperformance).

Self- Versus Group Affirmation

In the current research, we extend self-affirmation research by comparing two types of identity affirmation, namely, self-affirmation (which enhances *personal* identity) and group affirmation (which enhances *social* identity). In accordance with the social identity tradition (Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) we view personal and social identity as two separate aspects of the overall self-concept, each affecting an individual's motivated performance in different ways. Whereas personal identity refers to people's self-definition as unique and different from others, social identity refers to a part of the self-concept that is defined by the social categories to which one belongs. Self-affirmation research has addressed how people maintain positive self-regard, conceptualizing the self as based primarily in personal identity. However, stigmatization not only threatens personal identity but is even more likely to affect social identity. In parallel, self-affirmation theory and the social identity tradition have inspired research that has identified ways in which individuals affirm a threatened personal identity (Aronson, Cohen, & Nail, 1999; Spencer, Fein, & Lomore, 2001) or a threatened social identity, respectively (Crocker et al., 1998; Ellemers, Spears, & Doosje, 2002). For example, both theories propose that when individuals are confronted with threatening individual or collective failure feedback in one performance domain, their identity can be affirmed by focusing on high individual or collective performance in another domain.

Recent research has shown that the negative effects of social identity threat are alleviated not only by focusing group members

on positive aspects of their personal identity but also by focusing them on positive aspects of their social identity. Sherman and colleagues (2007) showed that focusing members of a low-status group on positive group characteristics (*group affirmation*) increased their acceptance of group-threatening information and reduced group-serving attributional biases of group outcomes. Moreover, Derks and colleagues (2007b) showed that women were more persistent and as a result showed higher performance in a domain in which their group was negatively stereotyped in an experimental context that affirmed their gender identity by valuing their group's high performance in another domain. Thus, whereas the link between self-affirmation and performance motivation has not been shown yet, previous research has shown that group affirmation improves performance motivation as compared with a control condition.

In the current article we aim to show that although self-affirmation and group affirmation at first sight may seem equally beneficial for the outcomes of low-status groups, they differentially affect the outcomes of the stigmatized group. That is, we propose that group affirmation has beneficial effects over self-affirmation as it preserves group members' willingness to improve not only their personal outcomes but also the outcomes of other group members. We argue that the processes underlying self-affirmation and group affirmation are qualitatively different. That is, whereas group affirmation affects motivation through the collective self, self-affirmation affects motivation through the individual self.

First, we aim to show that this qualitative difference between self- and group affirmation affects the way in which low-status group members strive for higher outcomes, motivating them to pursue either higher personal outcomes (following self-affirmation) or higher group outcomes (following group affirmation). Social identity theory proposes that members of disadvantaged groups can strive for higher outcomes by improving their personal performance in an attempt to gain entrance into higher status groups (individual mobility—e.g., when a woman strives to enter the top management of an organization dominated by men; Ellemers, 2001; Ellemers, Van Den Heuvel, De Gilder, Maass, & Bonvini, 2004; Ellemers & Van Laar, in press). Alternatively, members of disadvantaged groups can try to improve the status position and performance of the entire group (collective mobility—e.g., when women take action to ensure that more women are included in top management; Wright, 2001b). We predict that self-affirmation induces group members to focus on their individuality (Guimond, Dif, & Aupy, 2002), directing them toward behaviors that benefit their individual status. Group affirmation, on the other hand, to the extent that this helps individuals to view themselves as group members (Turner et al., 1987), should induce individuals to focus on behaviors that benefit the status of the entire group. Thus, although previous research showed that both types of identity affirmation can have beneficial effects, we distinguish between these different consequences of identity affirmation, with the aim of showing that compared with group affirmation, self-affirmation directs group members' attention away from their group. This induces them to focus on their individual outcomes alone rather than also striving for higher group outcomes.

Second, we propose that group affirmation is different from self-affirmation because it primarily affects group members who base part of their self-concept on this group (high identifiers).

Therefore we test whether the degree to which group members identify with the devalued group (i.e., the degree to which group membership is part of the self-concept) determines whether group affirmation leads to similar high performance motivation in status-defining domains as self-affirmation does. We hypothesize that because high identifiers base their self-concept on individual as well as group characteristics, high identifiers are equally motivated to improve their performance in status-defining domains regardless of whether they have had the opportunity for self-affirmation or for group affirmation. By contrast, low identifiers are less inclined to base their self-concept on the characteristics of the group and therefore will be more motivated to improve their performance in status-defining domains when their personal identity is affirmed than when their social identity is affirmed. In fact, because low identifiers prefer not to be seen as members of the low-status group, they might experience being treated as a member of this group (in group affirmation) as threatening to personal identity ("categorization threat"; Branscombe, Ellemers, Spears, & Doosje, 1999; Ellemers et al., 2002). Therefore we predict that whereas among highly identified group members group affirmation will lead to increased willingness to work for group improvement as compared with self-affirmation, group affirmation will lead low identifiers to emphasize their individual identity by engaging in individual mobility at the expense of group outcomes.

How Does Identity Affirmation Improve Motivation?

An additional goal of the current set of studies is to examine the process through which identity affirmation leads group members to remain motivated in status-defining domains. We argue that identity affirmation protects performance motivation in status-defining domains because it transforms the threat response that is induced by social devaluation into a challenge response (Blascovich & Tomaka, 1996; Lazarus & Folkman, 1984). Lazarus and Folkman's (1984) model of stress and coping and the biopsychosocial model of Blascovich and colleagues (Blascovich & Tomaka, 1996) propose that individuals in performance situations cognitively appraise the demands of the task and the personal resources to deal with these task demands. Individuals feel threatened when task demands exceed their perceived personal resources to cope with these demands, whereas challenge results when personal resources are perceived to meet or exceed task demands. We expect that self- or group affirmation improves motivation in a status-defining domain by increasing the resources people perceive themselves as having to overcome the threats that their group membership poses, turning a threat response into a challenge response.

Study 1

In Study 1, we compared the effects of self- and group affirmation on the well-being (personal and collective self-esteem) and self-improvement motivation of low and highly identified members of a devalued group. We hypothesized that after negative performance feedback in a status-defining domain, self-affirmation would induce devalued group members to feel good about themselves (personal self-esteem) and would lead to high performance motivation, irrespective of how identified individuals are with the group. However, group affirmation was hypothesized to improve the perception of the

in-group's worth (collective self-esteem) and lead to high performance motivation only for those group members for whom this social identity is important, that is, for high identifiers.

Additionally, Study 1 set out to check basic principles underlying the hypothesized effects of affirmation level and group identification. First, through an implicit measurement of cognitive self- and group focus devised by Dijksterhuis and Van Knippenberg (2000), Study 1 tested whether self- and group affirmation indeed lead to a focus on either participants' individual or collective self. Second, Study 1 established whether the manipulation of group affirmation (focusing on high in-group performance in another domain) leaves participants' perception of the overall status difference between the groups unaffected, as this might provide an alternative explanation for the results. We argue that motivation increases following group affirmation because self-regard is restored, rather than because group affirmation increases the perceived status of the low-status in-group.

Method

Participants

Participants were 107 female Leiden University students (mean age = 20 years) who voluntarily participated in the experiment in exchange for 4.5 euros (approximately 6.7 USD).

Procedure

Participants were seated in separate cubicles in which information was provided by computer. To obscure the goals of the study and to lower demand characteristics, participants read that the study would consist of three unrelated studies conducted by different researchers in our department. In the first part, participants were asked to help with the development of a new gender identification measure by filling in a questionnaire containing six *group identification* items (e.g., "Being a woman is important to me" and "I feel commitment towards other women"; $\alpha = .85$).¹

In the second, supposedly unrelated study, participants performed a bogus test measuring "holistic decomposition." This was presented as the ability to understand the meaning of different components in a complex situation and to rearrange these components to improve the functionality of the situation. In fact, this ability would later function as the identity-affirming domain. The task was to solve 10 anagrams that were designed to increase the likelihood that participants would feel that they were good at this. Pretesting confirmed that this was the case.

Then, participants were informed about the goals of the third study, namely, measuring differences between men and women on a cognitive ability called "inferential flexibility." Inferential flexibility was presented as the ability to see associations between concepts that appear unrelated at first. This ability would later serve as the status-defining domain. Participants were informed that when academically educated job candidates apply for a job, they are often tested in assessment centers. Inferential flexibility was presented as one of the abilities measured to predict future job success in such assessments. The bogus inferential flexibility test consisted of 10 items based on McFarlin and Blascovich's (1984) Remote Associates Test, in which a word must be found that is associated with three presented words (e.g., for *elephant, lapse,*

and *vivid*, the correct answer is *memory*). On the basis of pretesting we selected difficult items to ensure participants would experience difficulty in this status-defining domain.

Induction of low group status in status-defining domain. After taking the test, participants received performance feedback about their personal performance and the performance of women in general on the inferential flexibility test. Participants read that their performance could fall into one of five categories. Then they read that their personal performance (compared with others) and their in-group's performance (women compared with men) fell into the category "below average," while men typically performed "above average" on this test. Thus, inferential flexibility was the status-defining domain in this study. Participants were informed about their personal as well as their in-group's performance in order to exclude the possibility that they would protect their self-esteem from negative group feedback by estimating higher personal than group performance (Schmader et al., 2001). To create an anticipated second achievement situation, participants were informed that the inferential flexibility test (the status-defining domain) would be administered for a second time at the end of the study.

Affirmation manipulation. To affirm their personal or social identity, participants then received positive performance feedback on the holistic decomposition test that they had completed earlier in the second study of the experimental session.² In the self-affirmation condition, participants read that their personal performance on this test compared with other students fell into the category "above average." In the group affirmation condition,

¹ In addition, in Studies 1, 2, and 3 we also measured self-typicality (Kashima, Kashima, & Hardie, 2000), which is sometimes conflated with identification, but more specifically denotes the degree to which group members feel similar to other group members (three items; e.g., "I have much in common with other women"). This allowed us to exclude the possibility that highly identified participants in the group-affirmation condition were more affected by this information than low identifiers simply because for them group performance feedback was seen as more diagnostic of their personal performance in this domain (and therefore improved their personal identity). Instead, we predicted that the effect of group affirmation should depend on the subjective importance of the group for the self, not on perceived self-group typicality. Although group identification and self-typicality were indeed significantly correlated, analyses of covariance to check whether self-typicality accounted for any of the effects of group identification in Studies 1 to 3 revealed that neither the main effect nor the interactive effect of self-typicality could account for any of the effects that were found for group identification.

² In keeping with previous work on social creativity, rather than having participants affirm values that are important to themselves or their group (Sherman et al., 2007), we examined a different form of affirmation, namely, buffering the self (or the group) by focusing on alternative domains in which the self (or the group) is successful. One might wonder whether participants apply this performance information on the alternative dimension to assessments of performance on the status-defining dimension, thereby boosting self- or collective efficacy in the threatened domain. However, manipulation checks reported in Study 4, as well as in a previous study (Derks et al., 2007a, Experiment 3), indicate that providing participants with positive feedback in an alternative domain does not improve their perception of personal and group performance in the status-defining domain. If anything, results in Study 4 (see footnote 8) reveal that participants are more likely to acknowledge their personal failure on the status-defining dimension after they have received self- or group affirmation.

participants read that although we were not able to give them personal feedback at this point, we could inform them that the average performance of women who had participated in previous studies fell into the category “above average,” whereas the performance of men in this domain fell into the category “below average.” This manipulation was checked by asking participants about perceptions of their personal ability as well as the ability of women and men in general in the identity-affirming domain (i.e., “Within the domain of holistic decomposition [I/women/men] perform . . .” [1 = *very poorly* to 9 = *very well*]).

Finally, in order to endorse the identity-affirming domain as a relevant performance domain (Derks et al., 2006), participants were told that both performance domains were valued highly by employers and that it was very likely that they would be tested in both domains when they applied for jobs in the future.

After the dependent variables were measured, participants were informed that there would not be a second measurement of inferential flexibility after all. Participants were debriefed, thanked, and paid for their participation.

Measures

All measures were assessed on 9-point Likert-type scales. *Personal state self-esteem* was measured with six items from Rosenberg’s (1965) Self-Esteem Scale that we adjusted to measure state (instead of trait) self-esteem (e.g., “At this moment I take a positive attitude towards myself”; $\alpha = .92$). *Private collective self-esteem*, which indicates group members’ personal evaluations of their group, was measured with the subscale of Luhtanen and Crocker’s (1992) Collective Self-Esteem Scale, which we adjusted to measure state collective self-esteem. However, because preliminary analyses revealed different results on the positive compared with the negative items, we examined the positive items ($r = .63$; “At this moment I am glad to be a woman” and “At this moment I feel good about being a woman”) and negative items ($r = .32$; “At this moment I feel that women are not worthwhile” and “At this moment I regret that I am a woman”) in two separate subscales. This division was supported by a principal-components analysis, which revealed one component consisting of the positive items (explaining 48% of the variance) and one component consisting of the negative items (explaining 26% of the variance).

We checked the *perceived overall status difference* between men and women on the labor market by asking participants to estimate the status of each group on the labor market on a 9-point scale on which a high score indicated high status. To measure *self-improvement motivation* in the status-defining domain we informed participants that we would examine in more detail why some participants performed better on the status-defining task than others. To this end, they were asked how much time they were willing to spend voluntarily on completing two questionnaires. One questionnaire supposedly focused on individual-difference factors and the second on gender differences. By filling in the first questionnaire, participants were told, they would gain more insight into how to improve their personal performance, whereas the second questionnaire would increase their insight into how women could improve their performance compared with men. Participants read that they could voluntarily take each questionnaire and were asked to indicate how much time (between 0 and 6 min) they

wanted to spend on answering questions in the first questionnaire (i.e., “How many minutes would you like to spend on the questionnaire that provides insight into how you can improve your performance?”) and the second questionnaire (i.e., “How many minutes would you like to spend on the questionnaire that provides insight into how women can improve their performance?”).

Finally, to check in an implicit fashion whether, compared with self-affirmation, group affirmation led to more *group focus* than *self-focus*, we administered a task designed by Dijksterhuis and Van Knippenberg (2000). Participants were given a short text written in a bogus language (“Weswe”). In this text, 20 words were underlined and participants were asked to guess to which Dutch personal pronouns these words would translate to. We counted the number of times participants suggested self-related pronouns (*I, me, mine*) versus group-related pronouns (*we, us, our*).

Results

Overview of Regression Analyses

The results were analyzed using hierarchical regression analyses. Group identification was first standardized and then entered as a main effect together with affirmation level (1 = personal, 2 = social) in Step 1. In Step 2, the interaction between group identification and self-affirmation was entered. Interaction effects were subsequently investigated by calculating simple slopes for low (-1 SD) and high identifiers ($+1$ SD) or for the self- and group-affirmation conditions (Preacher, Curran, & Bauer, 2006).

Group identification

Reported gender identification was relatively high ($M = 7.05$, $SD = 1.08$, on a 9-point scale).

Manipulation Checks

Affirmation level. The manipulated affirmation level influenced participants’ ratings of personal, in-group, and out-group ability in the identity-affirming domain as intended. Participants in the self-affirmation condition reported higher personal ability in the identity-affirming domain ($M = 6.78$, $SD = 1.13$) than participants in the group-affirmation condition ($M = 5.43$, $SD = 1.97$; $B = -1.33$, $SE = 0.31$, $F(1, 104) = 18.40$, $p < .001$, semipartial $r^2 = .15$). Additionally, in the group-affirmation condition participants perceived a larger ability gap between men and women in the identity-affirming domain ($M_{\text{women}} = 6.79$, $SD = 1.32$; $M_{\text{men}} = 3.57$, $SD = 1.62$) than in the self-affirmation condition ($M_{\text{women}} = 5.83$, $SD = 1.38$; $M_{\text{men}} = 5.31$, $SD = 1.48$; $B = 2.74$, $SE = 0.45$, $F(1, 104) = 36.49$, $p < .001$, semipartial $r^2 = .26$). There were no effects of group identification.

Overall status difference. By comparing the perceived overall status of men and women on the labor market, we checked whether self- and group affirmation led participants to perceive the same overall status difference between men and women in this context. If group affirmation reduces the perception of an overall status difference between men and women, this could mean that the effects of the group-affirmation manipulation were not due to the restoration of self-regard but to a lower initial threat to self-regard. However, as intended the perceived status difference between men ($M = 6.85$, $SD = 1.41$) and women ($M = 6.10$, $SD = 1.49$),

$t(106) = 6.03, p < .001$, did not differ between conditions (all $F_s < 2.11$).

Self- and group focus. Although only marginal, as hypothesized the difference in the number of self-related and group-related pronouns that participants listed was predicted by affirmation level ($B = -0.93, SE = 0.51$), $F(1, 101)^3 = 3.37, p = .07$, semipartial $r^2 = .03$. Whereas participants in the self-affirmation condition listed more self- than group-related pronouns ($M_{\text{self}} = 5.33, SD = 1.73$; $M_{\text{group}} = 4.86, SD = 1.71$), participants in the group-affirmation condition listed more group- than self-related pronouns ($M_{\text{self}} = 4.28, SD = 1.56$; $M_{\text{group}} = 4.74, SD = 1.82$). This further supports the notion that the affirmation manipulation focused participants' attention on different levels of the self-concept. There were no effects of group identification.

Personal Self-Esteem

After participants received negative feedback in the status-defining domain, self-affirmation led to higher personal self-esteem than group affirmation ($B = -0.60, SE = 0.26$), $F(1, 104) = 5.46, p = .02$, semipartial $r^2 = .05$. Of note, the predicted interaction effect qualified this main effect ($B = 0.54, SE = 0.25$), $F(1, 103) = 4.49, p = .04$, semipartial $r^2 = .04$ (see Figure 1). Simple slope analyses revealed that self-affirmation led to similar self-esteem among low and high identifiers ($B = -0.06, ns$). Group affirmation, however, led to higher self-esteem among high identifiers than among low identifiers ($B = 0.48$), $t(103) = 2.75, p < .01$. Moreover, whereas self- and group affirmation led to similar levels of self-esteem among high identifiers ($B = -0.06, ns$), low identifiers' self-esteem benefited more from self-affirmation than from group affirmation ($B = -1.14$), $t(103) = -3.18, p < .01$.

Collective Self-Esteem

Positive collective self-esteem was predicted by group identification only ($B = 0.72, SE = 0.14$), $F(1, 104) = 28.04, p < .001$, semipartial $r^2 = .21$. However, for negative collective self-esteem (the degree to which participants felt negative about their female identity), the regression analysis revealed a significant interaction effect ($B = -0.35, SE = 0.17$), $F(1, 103) = 4.01, p = .05$, semipartial $r^2 = .04$ (see Figure 1). Whereas self-affirmation led to equally negative collective self-esteem among low and highly identified women ($B = 0.04, ns$), as expected, group affirmation induced less negative collective self-esteem among high identifiers than among low identifiers ($B = -0.31$), $t(103) = -2.47, p = .02$. Additionally, whereas high identifiers tended to, if anything, have less negative collective self-esteem following group affirmation than following self-affirmation ($B = -0.35$), $t(103) = 1.42, p = .16$, low identifiers tended to have more negative collective self-esteem following group affirmation compared with self-affirmation ($B = 0.35$), $t(103) = -1.42, p = .16$. As expected, these results show that group affirmation reduced negative collective self-esteem only for high identifiers.

Self-Improvement Motivation

Although we separately asked participants to indicate the time they were willing to spend on finding out how to improve their personal performance and their group's performance, both items

yielded similar results. As the two items were highly correlated ($r = .55$), we present their combined results here. Combining the two items yields a score that indicates the time that participants voluntarily selected to find out how to improve their personal and group's performance in the status-defining domain (between 0 and 12 min). This score was explained by the predicted interaction between affirmation level and group identification ($B = 0.95, SE = 0.47$), $F(1, 103) = 4.08, p = .05$, semipartial $r^2 = .04$ (see Figure 1).⁴ Whereas self-affirmation led to similar self-improvement motivation among low and high identifiers ($B = -0.43, ns$), group affirmation tended to lead to higher self-improvement motivation among high than among low identifiers ($B = 0.52$), $t(103) = 1.63, p = .11$. As such, high identifiers reported similar self-improvement behavior following self-affirmation as following group affirmation ($B = 0.13, ns$). Low identifiers, however, reported higher self-improvement motivation following self-affirmation than following group affirmation ($B = -1.77$), $t(103) = -2.66, p < .01$. These results confirmed the prediction that group identification determines whether group affirmation results in similar levels of self-improvement motivation as self-affirmation does.

Discussion

Study 1 is the first to compare the differential motivational effects of self- and group affirmation among low and highly identified members of a devalued group. Whereas previous research focusing on members of devalued groups has revealed the beneficial effects of self-affirmation on performance (Cohen et al., 2006; Martens et al., 2006) and of group affirmation on self-improvement motivation (Derks et al., 2007b), this study is the first to directly compare their effects on people's motivation to improve performance in a domain in which their group is negatively stereotyped. This study shows that self-affirmation results in equally high personal self-esteem and self-improvement motivation among low and highly identified group members. Group affirmation, however, specifically results in higher personal and collective self-esteem and self-improvement motivation among group members for whom group membership is an important part of their self-concept.

Study 2

In Study 2, we set out to identify the psychological process that explains why both self- and group affirmation lead to high self-improvement motivation among high identifiers, whereas among low identifiers self-affirmation leads to higher self-improvement motivation than does group affirmation. Challenge appraisals were examined as the key variable to explain why group affirmation is less beneficial for low identifiers than for high identifiers (Blascovich & Tomaka, 1996; Lazarus & Folkman, 1984). Challenge and threat have often been conceptualized and measured as two

³ The number of degrees of freedom in this analysis is lower because 3 participants failed to complete this measure.

⁴ The main effect of self-affirmation also approached significance ($B = -0.82, SE = 0.48$), $F(1, 104) = 2.95, p = .09$, semipartial $r^2 = .03$, indicating a tendency for self-affirmation to lead to higher self-improvement motivation than group affirmation.

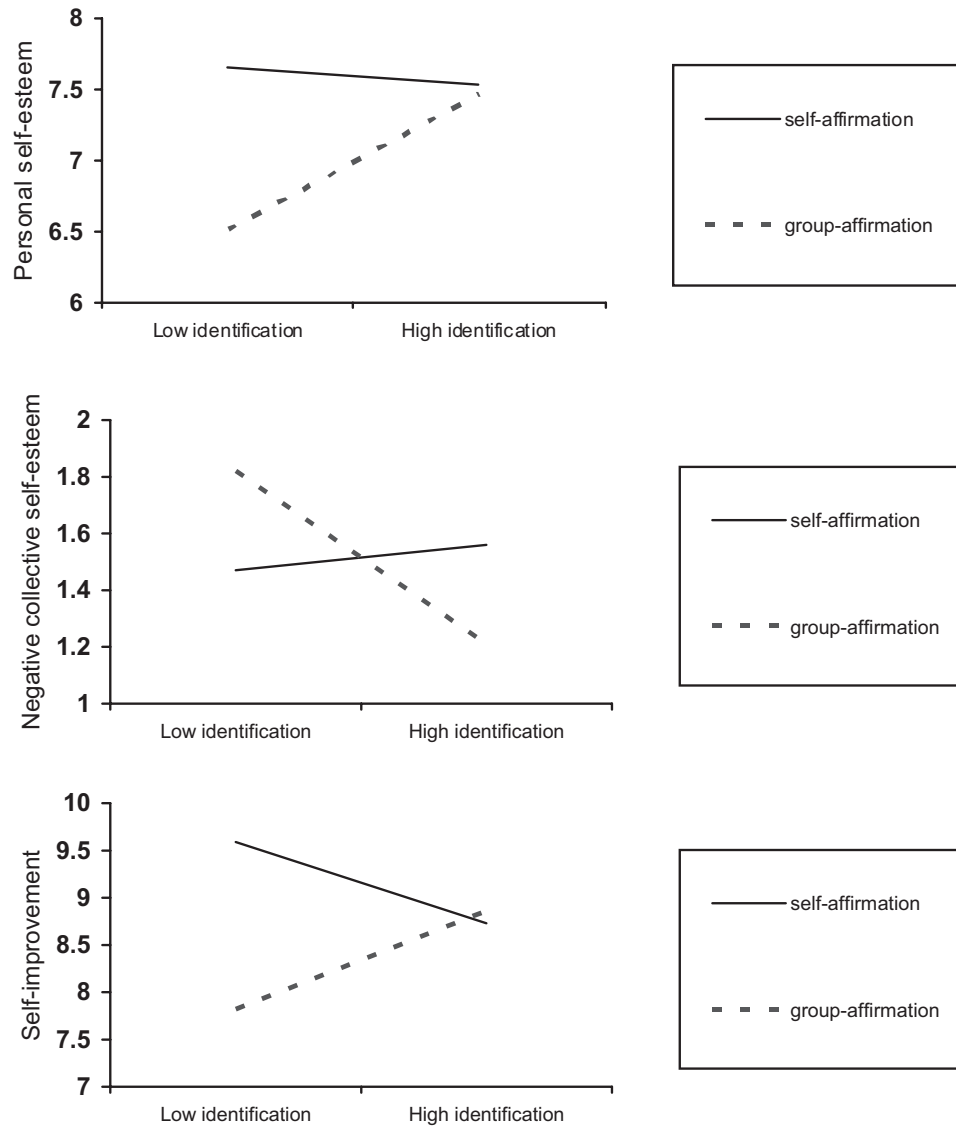


Figure 1. Personal self-esteem, negative collective self-esteem, and self-improvement motivation in the self- and group-affirmation conditions for participants with low (-1 SD) and high group identification ($+1$ SD) in Study 1.

sides of the same coin. In performance situations, people are said to estimate the ratio between situational demands and personal coping resources, with either threat (higher demands than resources) or challenge (lower demands than resources) resulting from this appraisal. We expect, however, that challenge and threat are distinct psychological constructs and that challenge is more predictive of self-improvement motivation than threat is (Kuiper, McKenzie, & Belanger, 1995). Indeed, in previous research (Derks et al., 2007b, Experiment 3) threat reported by low-status group members was unrelated to the persistence they displayed in a status-defining domain. We argue that whereas the absence of threat will not necessarily be a source of motivation, perceiving the performance situation as a positive challenge can activate people to improve performance. Accordingly, research on regulatory focus (Higgins, Shah, & Friedman, 1997) shows that threat-related

emotions, such as agitation and nervousness, are in line with a prevention goal orientation by which people are concerned with avoiding failure. Challenge-related emotions, meanwhile, such as cheerfulness and enthusiasm, denote a promotion goal orientation by which people focus on achievement and success.

In Study 2 we thus measure the degree to which participants feel threatened and challenged following self-affirmation or group affirmation. We hypothesize that after failing in a status-defining domain, members of devalued groups feel threatened. However, after affirming a relevant part of their identity, we predict, devalued group members come to perceive an upcoming status-defining task primarily as a challenge. Therefore, we expect that highly identified group members will feel equally challenged after both self- and group affirmation, but that less identified group members will feel challenged after self-affirmation but less so after group affirmation.

Method

Participants

Participants were 115 Leiden University students (85 women and 30 men; mean age = 20 years) who voluntarily participated in the experiment and were paid 4.5 euros (approximately 6.7 USD).⁵

Procedure

Presented as an unrelated study, participants first performed the holistic decomposition test (the same as in Study 1), which would later serve as the identity-affirming domain. Then, participants were informed that the goal of the study was to measure differences between Dutch and Belgian students on a cognitive ability called "inferential flexibility." We created an intergroup context by informing participants that we were examining whether differences in the Dutch and Belgian educational systems also caused differences in cognitive skills. Participants (who all confirmed that they had been educated in the Netherlands) answered a number of detailed questions about their educational background (types of schools, etc.). Then they were asked to take the inferential flexibility test (the same as used in Study 1), which served as the status-defining domain.

Induction of low group status. After taking the test, participants read that research had shown that Dutch students have lower status on the European labor market compared with Belgian students, and that this was (supposedly) caused by a lower quality school system in the Netherlands compared with Belgium.⁶ Then, participants received both personal and group feedback about performance on the inferential flexibility test indicating that they personally and Dutch students in general performed worse than Belgian students in the domain of inferential flexibility. To create an anticipated second achievement situation, we informed participants that the inferential flexibility test would be administered for a second time at the end of the study.

Group identification. Group identification was measured with six items (e.g., "I feel strongly connected to other Dutch people"; $\alpha = .90$).

Affirmation manipulation. As in Study 1, participants received positive feedback about either personal (compared with other students) or group performance (Dutch compared with Belgian students) on the holistic decomposition test.

After completing the dependent variables, participants were informed that there would not be a second measurement of inferential flexibility. Participants were debriefed, thanked, and paid for their participation.

Measures

All measures were assessed on 9-point scales. *Threat* ($\alpha = .84$) was assessed by combining the cognitive appraisal of threat ("I appraise the second inferential flexibility test as a threat") and emotions that indicate threat (anxious, nervous, frightened) when thinking about the upcoming test. *Challenge* ($\alpha = .80$) was assessed with challenge appraisal ("I appraise the second inferential flexibility test as a positive challenge"), as well as emotions indicating challenge (enthusiastic, happy, glad). Finally, *motivation on the status-defining domain* was measured with one item (i.e., "I plan to do my best on the inferential flexibility test").

Results

Group Identification

Participants' mean identification with their nationality was above the midpoint of the scale ($M = 5.56$, $SD = 1.58$). As can be expected, national identification was somewhat lower than the gender identification reported in Study 1.

Manipulation Checks

Again, the manipulation of affirmation level successfully affected perceived personal ability, as well as the ability of the in-group and the out-group on the identity-affirming domain. Reported personal ability in the alternative domain was higher after self-affirmation ($M = 6.63$, $SD = 0.64$) than after group affirmation ($M = 4.48$, $SD = 1.69$; $B = -2.15$, $SE = 0.17$), $F(1, 112) = 81.60$, $p < .001$, semipartial $r^2 = .42$. Similarly, affirmation level affected the gap in perceived ability of each group in the identity-affirming domain ($B = 4.91$, $SE = 0.45$), $F(1, 112) = 119.72$, $p < .001$, semipartial $r^2 = .52$. In the group-affirmation condition Dutch were indeed perceived as having higher ability than Belgians ($M_{\text{in-group}} = 6.93$, $SD = 1.19$; $M_{\text{out-group}} = 3.11$, $SD = 1.40$). In the self-affirmation condition Belgians were perceived to have higher ability in the identity-affirming domain than Dutch ($M_{\text{in-group}} = 4.64$, $SD = 1.41$; $M_{\text{out-group}} = 5.73$, $SD = 1.19$).

Threat and Challenge

The degree to which participants perceived the testing situation as a threat was higher in the group-affirmation condition than in the self-affirmation condition ($B = 0.55$, $SE = 0.28$), $F(1, 112) = 3.93$, $p = .05$, semipartial $r^2 = .03$. This main effect was qualified, however, by a significant interaction ($B = -0.72$, $SE = 0.27$), $F(1, 111) = 6.92$, $p = .01$, semipartial $r^2 = .06$ (see Figure 2). Highly identified group members reported the same level of threat in the self- and group-affirmation condition ($B = -0.17$, ns). However, among low identifiers threat was lower in the self-affirmation condition than in the group-affirmation condition ($B = 1.27$), $t(111) = 3.30$, $p = .01$. As a result, in the self-affirmation condition, low identifiers reported lower threat than high identifiers ($B = 0.45$), $t(111) = 2.45$, $p = .02$. However, in the group-affirmation condition low and high identifiers were equally threatened ($B = -0.27$, ns).

The degree to which participants perceived the testing situation as a challenge was explained by a significant interaction between affirmation level and group identification ($B = 0.68$, $SE = 0.24$), $F(1, 111) = 7.73$, $p = .01$, semipartial $r^2 = .06$ (see Figure 2). As was the case for threat, whereas highly identified group members felt equally challenged in the self-affirmation condition as in the

⁵ Originally 116 individuals participated, but 1 was excluded from data analysis because his answers to positively and negatively framed questions revealed that he did not answer the questions seriously. Including this participant does not substantially change the results.

⁶ This is a credible claim because a commonly held stereotype among Dutch students is that studying at Belgian universities is more difficult than studying at Dutch universities is, as the Belgian university system is perceived as more strict and more focused on detailed knowledge of course materials.

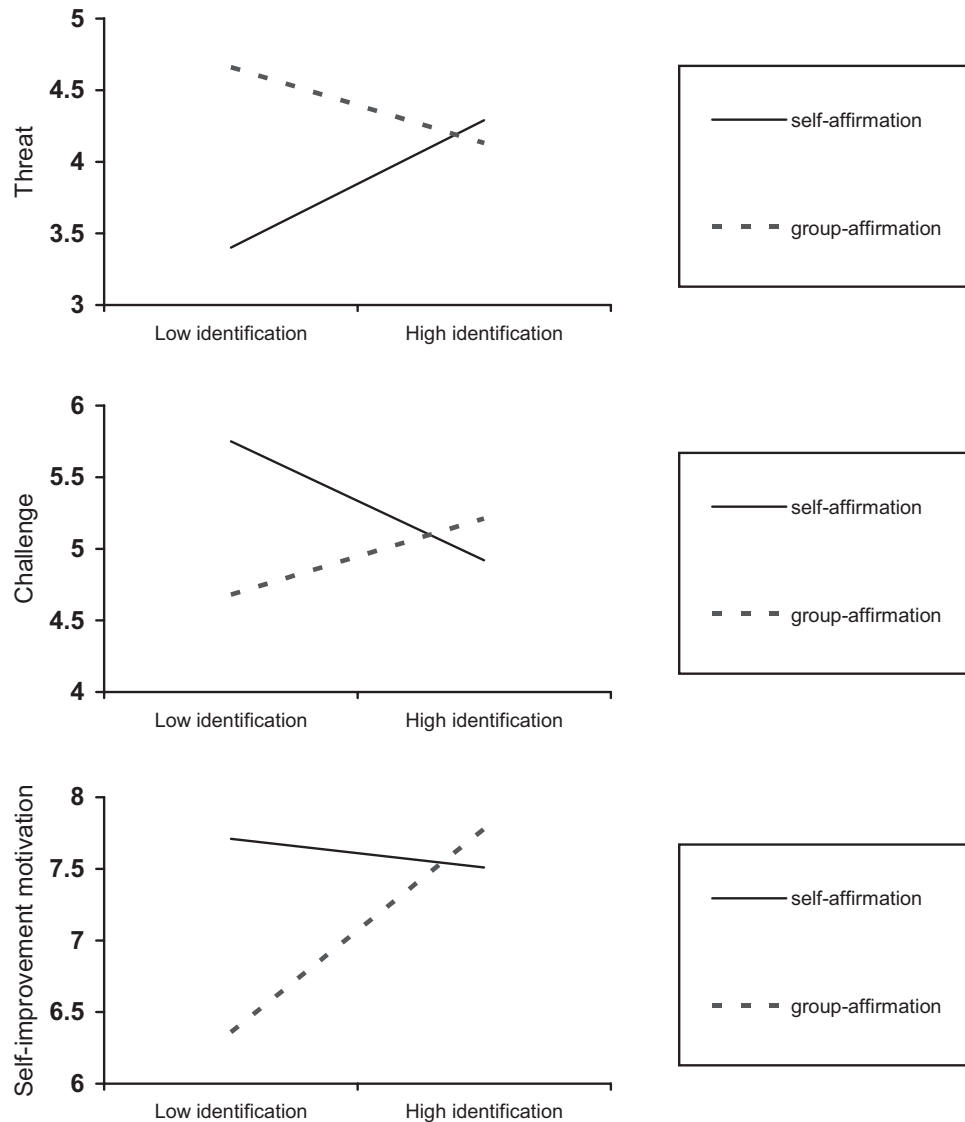


Figure 2. Threat, challenge, and self-improvement motivation in the self- and group-affirmation conditions for participants with low (-1 SD) and high group identification ($+1$ SD) in Study 2.

group-affirmation condition ($B = 0.29$, ns), low identifiers felt less challenged after group affirmation than after self-affirmation ($B = -1.07$), $t(111) = -3.11$, $p = .01$. Thus, self-affirmation led to higher challenge appraisals for low than for high identifiers ($B = -0.41$), $t(111) = -2.52$, $p = .01$. Group affirmation, however, led to similar challenge appraisals for low and high identifiers ($B = 0.27$, ns).

Motivation on the Status-Defining Domain

The main effects of group identification ($B = 0.26$, $SE = 0.15$), $F(1, 112) = 3.00$, $p = .09$, semipartial $r^2 = .03$, and affirmation level ($B = -0.54$, $SE = 0.30$), $F(1, 112) = 3.35$, $p = .07$, semipartial $r^2 = .03$, approached significance. As expected, however, the predicted interaction was statistically reliable ($B = 0.81$, $SE = 0.29$), $F(1, 111) = 7.86$, $p = .006$, semipartial $r^2 = .06$ (see

Figure 2). This interaction replicated the results on self-improvement motivation found in Study 1. In the self-affirmation condition, low and high identifiers reported equal levels of motivation ($B = -0.10$, ns). However, after group affirmation low identifiers reported being less motivated than high identifiers ($B = 0.71$, $SE = 0.24$), $t(111) = 2.68$, $p < .01$. Thus, low identifiers were more motivated to do well in the status-defining domain in the self-affirmation condition than in the group-affirmation condition ($B = -1.35$), $t(111) = -3.27$, $p = .01$. High identifiers, however, were equally motivated in the status-defining domain in the group-affirmation condition as in the self-affirmation condition ($B = 0.27$, ns).

We examined whether self-improvement motivation was mediated by either threat or challenge. Following the procedures recommended by Muller, Judd, and Yzerbyt (2005) to test for mediated moderation, we confirmed that the moderation of the effect of

affirmation level on motivation by group identification was mediated by challenge, not threat (see Figure 3). Adding the regression effect of challenge on motivation ($B = 0.52$, $SE = 0.10$), $F(1, 112) = 25.99$, $p < .001$, semipartial $r^2 = .17$, significantly reduced the interaction effect between affirmation level and identification ($B = 0.46$, $SE = 0.27$, $p = .09$; semipartial $r^2 = .02$; Sobel test = 2.49, $p = .01$). Additionally, as was the case in previous research (Derks et al., 2007b, Experiment 3) motivation in the status-defining domain was *not* mediated by threat, as indicated by the nonsignificant regression effect of threat on motivation ($B = -0.12$, $SE = 0.10$, *ns*). Thus, as hypothesized, high identifiers were motivated by both self- and group affirmation because both types of affirmation made them appraise the situation as a challenge. Further, self-affirmation led to higher self-improvement motivation among low identifiers than did group affirmation, because this individual-level feedback led to higher challenge appraisals than did group-level feedback.

Discussion

Study 2 successfully replicated the effects of self- versus group affirmation on the self-improvement motivation of members of a devalued group found in Study 1. Study 2 additionally extended the results of Study 1 by replicating these findings in a more incidentally devalued group and a less chronically salient context, namely, Dutch students who were accorded low status compared with Belgian students on the European labor market. Again, self-affirmation led to high self-improvement motivation among low and high identifiers. However, as predicted, group affirmation again led to high motivation only among participants who reported to be highly identified with their group.

Most important, the results of Study 2 provide further insight into the psychological process that explains why identity affirmation among members of devalued groups helps to increase performance motivation in status-defining domains (Derks et al., 2007b). Affirming a relevant part of the self-concept of devalued group members (i.e., personal identity for low identifiers and either personal or social identity for high identifiers) leads them to perceive upcoming tasks related to the status-defining domain as a challenge. It is this perception of challenge that explains the high motivation in the status-defining domain. Furthermore, although perceptions of both threat and challenge were significantly affected by the interaction between affirmation level and group identification, only challenge appraisals could account for the difference in motivation in the status-defining domain between low and high identifiers following group affirmation. This finding confirms the notion that although perceptions of threat and chal-

lenge might appear to be two sides of the same coin, their ability to predict performance motivation is different.

Study 3

Studies 1 and 2 showed that depending on group identification, both self- and group affirmation can induce high self-improvement motivation. However, these studies do not reveal whether this self-improvement is directed at improving personal status or improving collective status. Study 3 was designed to examine whether affirming the personal versus social identity of members of a devalued group differentially affects their willingness to perform behavior that is aimed at improving their group's status versus their individual outcomes. We predict that although self- and group affirmation might both successfully reduce social identity concerns, self-affirmation has negative social costs because it induces group members to turn away from their group and strive to improve only their individual outcomes.

Although one could argue that equal outcomes for different groups are achieved when individual group members focus on achieving their optimal personal potential in status-defining domains, considerable research has shown the limits of individual mobility as a vehicle for collective status improvement (for a review, see Ellemers & Van Laar, in press). Often, entrance into higher status settings (e.g., top management) is highly restricted to a small minority of members of the disadvantaged group ("tokenism"; Wright, 2001a). This means that even though some individual group members might achieve positions of higher status, the opportunities of others, regardless of their motivation, remain quite low. Moreover, even when some group members succeed in achieving individual mobility, they may serve to legitimize social stratification as their small number simultaneously serves as "proof" that all individuals have equal opportunities for status improvement, while in fact this is not the case (Ellemers & Van Laar, in press). Furthermore, individual mobility may reduce people's concern for the welfare of their (erstwhile) group as it requires a physical or psychological distancing from the group. This can lead people to discriminate against members of their former group and to oppose collective action by other members of their group (Ellemers, 2001; Ellemers et al., 2004; Wright & Taylor, 1999). Thus, although individual mobility can help to reduce social inequality, collective behavior aimed to more generally improve outcomes for the entire group is an important part of more large-scale social change.

Self-categorization theory predicts that depending on whether personal or social identity is cognitively salient, individuals will focus on either their personal welfare or the welfare of their group as a whole (Turner et al., 1987). We thus expect group affirmation to increase group members' interest in behavior that not only benefits themselves but also benefits other members of their group (collective mobility). Self-affirmation, on the other hand, is expected to lead to decreased willingness to engage in behavior that improves collective status. Previous research has consistently shown that high identifiers are more likely to work for collective mobility, whereas low identifiers are most likely to pursue individual mobility (Doosje, Ellemers, & Spears, 1999; Spears, Doosje, & Ellemers, 1999; Wright, 2001b). We thus expect group affirmation to increase the willingness to engage in collective mobility only among highly identified group members.

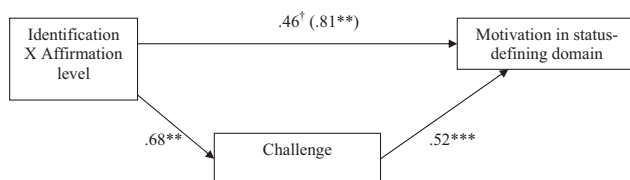


Figure 3. Mediation of the interaction between group identification and affirmation level on motivation by challenge appraisals in Study 2. ** $p < .01$. *** $p < .001$. † $p < .10$.

Moreover, we predict that group affirmation negatively affects collective behavior in low-identified group members. For low identifiers group affirmation may pose a threat to their self-concept as it implies that they are being seen as interchangeable members of the low-status group (Branscombe et al., 1999; Ellemers et al., 2002). As a result, we expect low-identified group members to be even more likely to emphasize their individuality by pursuing individual mobility following group affirmation than following self-affirmation.

To investigate these hypotheses we examined willingness to engage in behavior that either promotes or undermines higher status for the whole group. For example, we asked participants whether they would be willing to act in a less feminine way in order to improve their chances within an organization, an individual strategy that perpetuates the general idea that job success is not compatible with being feminine.

Method

Participants

Participants were 111 female Leiden University students (mean age = 20 years) who voluntarily participated in exchange of 4.5 euros (approximately 6.7 USD).

Procedure

Apart from the dependent measures, the experimental procedure was identical to that in the previous studies. Again, we obscured the goal of our study by presenting the experiment as consisting of three unrelated studies. We measured group identification (seven items; $\alpha = .85$) and manipulated self- versus group affirmation. The success of this manipulation was again checked by asking participants about their personal ability and the ability of women and men in general in the identity-affirming domain.

Measures

All measures were assessed on 9-point scales. Interest in *collective mobility* was measured with three items ($\alpha = .60$; "I think it is important that women support each other while striving for a high position on the labor market," "Women have the highest chance of gaining equal status to men on the labor market when they contest these status differences together," and "I am not that interested in the position of women in general on the labor market" [reverse coded]). Interest in (*in-group-undermining*) *individual mobility* was measured by assessing whether women were willing to disidentify from their group in order to increase personal status (two items, $r = .30$; "I am willing to work in an organization that devalues women compared to men, as long as I'm not personally affected by this" and "I would be willing to act in a less feminine way if that would improve my opportunities within an organization").

Results

Group Identification

As in Study 1, participants' gender identification was relatively high ($M = 6.88$, $SD = 1.16$).

Manipulation Checks

Again, the manipulation of affirmation level successfully influenced how participants perceived their personal ability as well as the ability of men and women in the self-affirming domain. Higher personal ability in the identity-affirming domain was perceived in the self-affirmation condition ($M = 6.95$, $SD = 1.19$) than in the group-affirmation condition ($M = 5.92$, $SD = 1.41$; $B = -1.04$, $SE = 0.25$), $F(1, 108) = 17.22$, $p < .001$, semipartial $r^2 = .14$. Additionally, participants perceived a larger ability gap between men and women in the identity-affirming domain in the group-affirmation condition ($M_{\text{women}} = 7.15$, $SD = 1.18$; $M_{\text{men}} = 3.34$, $SD = 1.31$) than in the self-affirmation condition ($M_{\text{women}} = 5.59$, $SD = 1.36$; $M_{\text{men}} = 5.24$, $SD = 1.19$; $B = 3.44$, $SE = 0.42$), $F(1, 108) = 68.26$, $p < .001$, semipartial $r^2 = .38$. This main effect was qualified by an interaction with group identification ($B = 1.13$, $SE = 0.41$), $F(1, 107) = 7.70$, $p = .007$, semipartial $r^2 = .04$. Simple slope analyses revealed that in the group-affirmation condition highly identified women emphasized the better performance of women than men in the identity-affirming domain even more than did less identified women ($B = 0.67$), $t(107) = 2.30$, $p = .02$. No such effect was found in the self-affirmation condition ($B = -0.46$), $t(107) = -1.59$, $p = .11$.

Individual Versus Collective Mobility

As anticipated, high identifiers were generally more willing to engage in collective mobility than were low identifiers ($B = 0.62$, $SE = 0.12$), $F(1, 108) = 26.20$, $p < .001$, semipartial $r^2 = .19$. This main effect was qualified by the predicted interaction between group identification and affirmation level ($B = 0.51$, $SE = 0.24$), $F(1, 107) = 4.56$, $p = .04$, semipartial $r^2 = .03$ (see Figure 4). Although in both conditions high identifiers were more interested in collective mobility than low identifiers, as expected this effect was more pronounced after group affirmation ($B = 0.87$), $t(107) = 5.17$, $p < .001$, than after self-affirmation ($B = 0.37$), $t(107) = 2.19$, $p = .05$. Thus, high identifiers were more willing to engage in collective mobility when their social self had been affirmed than when their personal self had been affirmed ($B = -0.85$), $t(107) = 2.53$, $p = .02$, whereas low identifiers were equally reluctant to engage in collective mobility irrespective of type of self-affirmation ($B = -0.17$), $t(107) = -0.50$, ns .

Similar effects were found for the willingness to engage in (in-group-undermining) individual mobility strategies. As anticipated, overall, low identifiers were more willing to engage in in-group-undermining individual mobility than were high identifiers ($B = -0.31$, $SE = 0.15$), $F(1, 108) = 3.94$, $p = .05$, semipartial $r^2 = .04$. In addition, the predicted interaction between self-affirmation and group identification was significant ($B = -0.60$, $SE = 0.31$), $F(1, 107) = 3.89$, $p = .05$, semipartial $r^2 = .03$ (see Figure 4). Simple slope analyses revealed that low identifiers were more inclined to pursue in-group-undermining individual mobility strategies than were high identifiers when they were categorized as group members ($B = -0.61$), $t(107) = -2.82$, $p < .01$, but this was not the case when they were affirmed as individuals ($B = -0.01$, ns). As a result, whereas high identifiers reported a similar reluctance to engage in in-group-undermining individual mobility irrespective of affirmation level ($B = -0.45$, ns), low identifiers tended to be more willing to pursue upward mobility that potentially undermined the

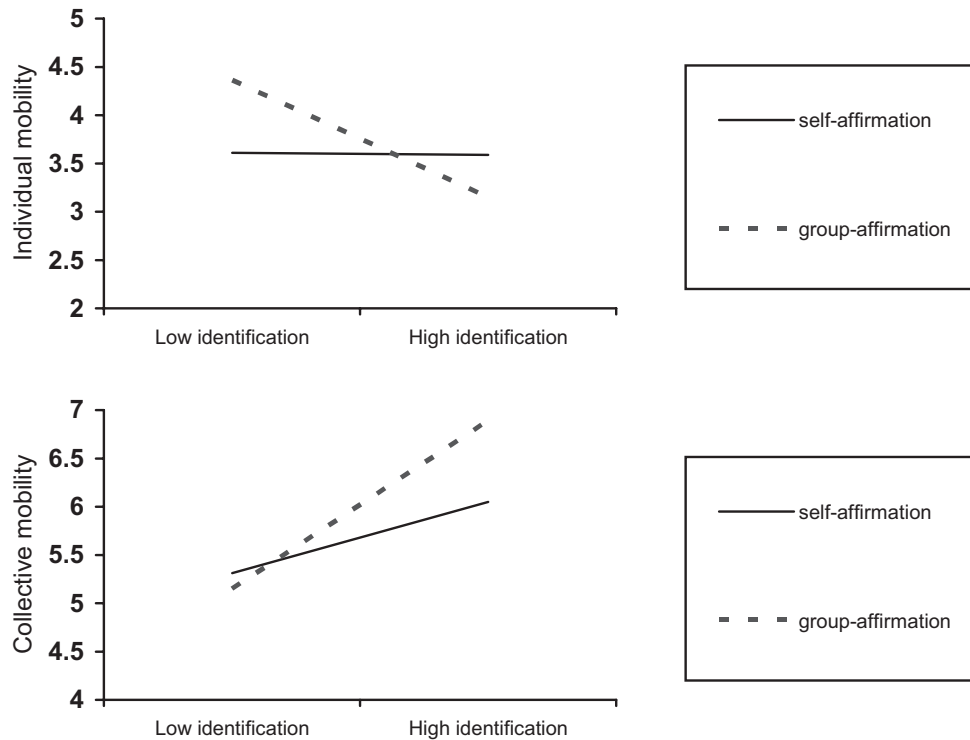


Figure 4. Interest in individual and collective mobility in the self- and group-affirmation conditions for participants with low (-1 SD) and high group identification ($+1$ SD) in Study 3.

in-group following group affirmation than following self-affirmation ($B = 0.75$), $t(107) = 1.74$, $p = .08$.

Discussion

Studies 1 and 2 revealed that both self- and group affirmation can serve to reduce the negative effects of social identity threat on self-improvement motivation in status-defining domains. Study 3 extends these results in an important way: Although both self- and group affirmation lead to high performance motivation, the way in which stigmatized group members subsequently aim to achieve improved outcomes is very different. Although overall, highly identified group members are more likely than less identified group members to pursue collective mobility, affirming their personal instead of social identity reduces their interest in helping their group to improve its status. By contrast, group affirmation allows highly identified group members to pursue performance improvement in status-defining domains (Studies 1 and 2) while simultaneously remaining concerned with the welfare of their group. Conversely, among low-identified group members, interest in collective mobility was low across the board and this was not affected by the type of affirmation received. As expected, however, affirmation level did affect the degree to which they were willing to engage in individual mobility that would simultaneously undermine the in-group. That is, whereas low identifiers were already more inclined to pursue self-improvement through individual mobility than were high identifiers, imposing on them the unwanted categorization as a member of a disadvantaged group without offering them feedback about their personal performance

(i.e., group affirmation) exacerbated this effect. Low identifiers thus may show reactance to group-based treatment by pursuing individual mobility strategies that undermine opportunities for the in-group to reach higher outcomes (i.e., categorization threat; Barreto & Ellemers, 2003; Branscombe et al., 1999; Ellemers et al., 2002).

Study 4

In Experiment 4, we sought to replicate and extend the findings of Study 3 by adding two types of control conditions to the design. First, we added a control condition in which participants received no identity-affirming information to establish whether self- and group affirmation actually improve or harm motivation and collective action tendencies compared with the absence of such information. Moreover, we included a condition in which participants received positive rather than negative feedback about their group's performance in the status-defining domain, to test whether self-affirmation and group affirmation increase low-status group members' interest in improving their outcomes (through individual or collective action) when their social identity is threatened but not when their social identity is not threatened.

In addition, we expanded our dependent variables. Rather than measuring whether participants are motivated to improve their own performance in the status-defining domain (Studies 1 and 2), we measured the *direction* of the efforts expended by group members (i.e., working toward self- or group improvement). Furthermore, instead of asking about participants' (hypothetical) intended motivation on an upcoming task, we asked participants to

report the direction of their efforts and motivation during task performance, after they had actually completed the second task.

Method

Participants

Participants were 168 female Leiden University students (mean age = 21 years) who voluntarily participated in the experiment in exchange for 4.5 euros (approximately 6.7 USD).

Procedure

Study 4 was very similar to the previous studies. Again, we presented the experiment as three unrelated studies. Group identification was measured with six items ($\alpha = .83$). We manipulated feedback type by giving participants either negative ("below average") or positive ("above average") feedback about their personal performance as well as the performance of women on the inferential flexibility test. In order to successfully manipulate success versus failure feedback we changed the format of the inferential flexibility test items from open ended to multiple choice, so that participants would be less able to predict their performance. This manipulation was checked by asking participants how they perceived their personal performance in the status-defining domain as well as how they perceived men and women to perform in this domain. Affirmation level was manipulated by giving participants either positive performance feedback about themselves (compared with others) or about their group (women compared with men) on the holistic decomposition test. Participants in the control condition were reminded of the holistic decomposition test but did not receive any performance feedback. This manipulation was checked by asking participants how they perceived their personal performance in the alternative domain as well as how they perceived men and women to perform in this domain.

Measures

All measures were assessed on 9-point scales unless otherwise indicated. Motivation to improve personal and group performance was measured after giving participants the opportunity to improve their personal and/or their group's performance in the status-defining domain by completing six additional test items. Moreover, to distinguish between self-improvement and group improvement, we explained to participants that three items were to be included in their personal performance score (the blue items) and three items were to be included in their group's performance score (the red items). Additionally, after these six items participants could volunteer for up to six additional items, each time deciding beforehand whether the item would serve to improve personal performance or group performance.⁷ After completion of this task, we measured *self-reported motivation to improve personal and group performance* with four items for each scale (for personal improvement, $\alpha = .77$; e.g., "By giving my best effort on the blue items I tried to improve my personal test score"; for group improvement, $\alpha = .76$; e.g., "I tried my best on the red items to improve the mean performance of female participants"). *Willingness to engage in collective behavior* was measured with six items ($\alpha = .81$; e.g., "If I worked in an organization I would agree to be a mentor for young female employees, to help them realize their

ambitions," "If I worked in an organization I would participate in an investigative committee that examines the salary differences between men and women"). Moreover, *willingness to engage in in-group-undermining individual mobility* was measured with three items ($\alpha = .67$; e.g., "I think it is important to attain a high position within an organization individually, even if this is at the expense of other women").

Results

Overview of Regression Analyses

All dependent variables were analyzed with hierarchical regression analyses. First, we contrast-coded the affirmation factor. Contrast 1 tested the basic effect of affirmation (control = -2, self- and group affirmation = 1). Contrast 2 compared self-affirmation with group affirmation (self-affirmation = -1, control = 0, group affirmation = 1). In Step 1, the main effects of group identification (standardized), feedback (success = -1, failure = 1), and the two contrasts were tested. In Step 2, the five two-way interactions between group identification, feedback type, and the two contrasts were entered. In Step 3, the two three-way interactions between group identification, feedback, and each contrast variable were entered. In the case of significant three-way interactions, we broke down this interaction by examining separately for the success and failure conditions the two-way interactions between group identification and either of the two contrast variables. Moreover, we examined the simple slopes of group identification within each experimental condition, and of differences between each pair of conditions within low (-1 SD) and high (+1 SD) identifiers (Preacher et al., 2006).

Group Identification

Again, participants' gender identification was relatively high ($M = 7.15$, $SD = 1.01$).

Manipulation Checks

Feedback type. The feedback manipulation successfully affected participants' ratings of personal, in-group, and out-group ability in the status-defining domain. As intended, participants reported higher personal performance in the status-defining domain in the success than in the failure feedback condition ($B = -1.30$, $SE = 0.11$), $F(1, 163) = 147.53$, $p < .001$, semipartial

⁷ Although our main interest is in the *direction* of participants' motivated behavior, not in their persistence on the task, we registered the time spent on self- and group improvement, as a potential indicator of performance motivation. We explored whether group identification, feedback type, and affirmation level affected the time that participants spent on self- and group improvement, but this was not the case. Time expenditure on the blue items ($M = 68.37$, $SD = 33.05$) as well as on the red items ($M = 65.81$, $SD = 32.54$) depended only on individual differences, as the time spent on the task was reliably predicted only by the time participants had spent in the initial task, when this was entered as a covariate in the analysis.

$r^2 = .46$.⁸ Moreover, the perceived performance difference between men and women in the status-defining domain was affected in the predicted way by the feedback manipulation ($B = -2.91$, $SE = 0.14$), $F(1, 163) = 425.51$, $p < .001$, semipartial $r^2 = .70$. That is, in the success condition participants reported women as performing better than men ($M_{\text{women}} = 7.46$, $SD = 0.80$; $M_{\text{men}} = 4.56$, $SD = 1.46$), whereas in the failure condition they reported women as performing worse than men ($M_{\text{women}} = 4.21$, $SD = 1.41$; $M_{\text{men}} = 7.13$, $SD = 0.88$).⁹

Affirmation level. The affirmation manipulation successfully affected participants' ratings of personal and group performance in the affirmation domain. As intended, the two main effects of the contrast variables were significant: affirmation versus control ($B = 0.38$, $SE = 0.09$), $F(1, 163) = 16.86$, $p < .001$, semipartial $r^2 = .08$; self- versus group affirmation ($B = -0.32$, $SE = 0.16$), $F(1, 163) = 23.37$, $p < .001$, semipartial $r^2 = .11$. Participants perceived higher personal ability in the affirming domain when they received self-affirmation ($M = 6.43$, $SD = 1.43$) than when they received group affirmation ($M = 4.91$, $SD = 1.63$) or no affirmation ($M = 4.56$, $SD = 2.08$).¹⁰ Moreover, the perceived performance lead of women was predicted by both contrast variables: affirmation versus control ($B = -0.94$, $SE = 0.12$), $F(1, 163) = 63.09$, $p < .001$, semipartial $r^2 = .25$; self- versus group affirmation ($B = -0.89$, $SE = 0.20$), $F(1, 163) = 18.88$, $p < .001$, semipartial $r^2 = .08$. In the group-affirmation condition participants reported that women performed better than men ($M_{\text{women}} = 7.13$, $SD = 1.29$; $M_{\text{men}} = 3.79$, $SD = 1.34$). A similar, albeit smaller difference was found in the self-affirmation condition ($M_{\text{women}} = 6.56$, $SD = 1.38$; $M_{\text{men}} = 4.98$, $SD = 1.67$). However, in the control condition participants did not report a difference in the performance of men and women ($M_{\text{women}} = 5.62$, $SD = 1.52$; $M_{\text{men}} = 5.98$, $SD = 1.19$).¹¹

Individual Mobility

Self-improvement motivation. The reported motivation to improve personal performance was affected by two three-way interactions between group identification, feedback type, and the two contrasts: affirmation versus control ($B = -0.32$, $SE = 0.07$), $F(1, 156) = 19.44$, $p < .001$, semipartial $r^2 = .10$; self- versus group affirmation ($B = -0.32$, $SE = 0.13$), $F(1, 156) = 6.35$, $p = .01$, semipartial $r^2 = .03$ (see Figure 5). In the failure condition only the interaction between group identification and the affirmation versus control contrast reached significance ($B = 0.21$, $SE = 0.09$), $F(1, 83) = 5.54$, $p = .02$, semipartial $r^2 = .06$. Simple slopes analyses revealed significant differences only between low and high identifiers in the group-affirmation condition ($B = 0.69$), $t(55) = 2.52$, $p = .02$, and between low identifiers in the control and the group-affirmation conditions ($B = -1.18$), $t(55) = 2.40$, $p = .02$. Thus, low identifiers' self-improvement motivation was indeed negatively affected by group affirmation compared with no affirmation, as predicted. Contrary to previous research (Derks et al., 2007b) group affirmation did not improve self-improvement motivation compared with the control condition for high identifiers.

In the success condition an interaction between affirmation level and group identification emerged: affirmation versus control ($B = -0.43$, $SE = 0.11$), $F(1, 73) = 14.32$, $p < .001$, semipartial $r^2 = .04$; self- versus group affirmation ($B = -0.49$, $SE = 0.17$), $F(1,$

$73) = 8.43$, $p < .01$, semipartial $r^2 = .08$. As can be seen in Figure 5, when there was no threat, highly identified women reported the highest improvement motivation after receiving self-affirmation, whereas low identifiers were especially motivated to improve personal performance after receiving group affirmation. Although this finding was not predicted, it suggests that after receiving success feedback the motivation to improve their (already successful) performance is enhanced when group members are affirmed in that part of their identity that they are less inclined to spontaneously focus on (i.e., personal identity for high identifiers, social identity for low identifiers).

Willingness to engage in (in-group-undermining) individual mobility. Analyses revealed that among highly identified women, self-affirmation increased interest in individual mobility. The regression analyses yielded the predicted main effect of group identification ($B = -0.32$, $SE = 0.13$), $F(1, 163) = 6.51$, $p = .01$, semipartial $r^2 = .04$, and an interaction between group identification and feedback type ($B = -0.37$, $SE = 0.13$), $F(1, 158) = 8.36$, $p < .01$, semipartial $r^2 = .04$, which were qualified by a marginal three-way interaction between group identification, feedback, and the affirmation versus control contrast ($B = -0.15$, $SE = 0.09$), $F(1, 156) = 3.03$, $p = .08$, semipartial $r^2 = .02$. In the success condition interest in in-group-undermining individual mobility beliefs was predicted by group identification only ($B = -0.70$, $SE = 0.17$), $F(1, 73) = 17.13$, $p < .001$, semipartial $r^2 = .18$. However, affirmation type and group identification together impacted on individual mobility in the failure condition. Both two-way interactions were significant: affirmation versus control ($B = 0.27$, $SE = 0.12$), $F(1, 83) = 5.34$, $p = .02$, semipartial $r^2 = .06$; self- versus group affirmation ($B = -0.49$, $SE = 0.24$), $F(1, 83) = 4.14$, $p = .05$, semipartial $r^2 = .04$. As can be seen in Figure 6, low and high identifiers reported similar interest in individual mobility in the group-affirmation and control conditions. However, self-

⁸ In addition, we found a main effect of the affirmation versus control contrast ($B = -0.17$, $SE = 0.07$), $F(1, 163) = 5.32$, $p = .02$, semipartial $r^2 = .02$; an interaction between group identification and the affirmation versus control contrast ($B = 0.19$, $SE = 0.08$), $F(1, 158) = 6.24$, $p = .01$, semipartial $r^2 = .02$; and a significant three-way interaction of these factors with feedback type ($B = -0.17$, $SE = 0.08$), $F(1, 156) = 4.51$, $p = .04$, semipartial $r^2 = .01$. Given the much larger effect size of the feedback manipulation, we feel confident that these effects did not harm the effectiveness of this manipulation.

⁹ There was also a significant main effect of the self- versus group-affirmation contrast ($B = -0.60$, $SE = 0.17$), $F(1, 163) = 12.23$, $p < .01$, semipartial $r^2 = .02$, as well as an interaction between feedback type and the self- versus group-affirmation contrast ($B = 0.36$, $SE = 0.17$), $F(1, 158) = 3.85$, $p = .05$, semipartial $r^2 = .01$. Given the large effect size of the feedback manipulation, we do not expect these effects to harm the effectiveness of this manipulation.

¹⁰ There was also a significant main effect of identification ($B = 0.26$, $SE = 0.13$), $F(1, 163) = 3.82$, $p = .05$, semipartial $r^2 = .02$. Moreover, the affirmation versus control contrast interacted significantly with identification ($B = 0.19$, $SE = 0.09$), $F(1, 158) = 3.88$, $p = .05$, semipartial $r^2 = .02$, and with feedback type ($B = -0.20$, $SE = 0.09$), $F(1, 158) = 4.79$, $p = .03$, semipartial $r^2 = .02$.

¹¹ We also found a main effect of feedback type ($B = 0.47$, $SE = 0.17$), $F(1, 163) = 7.17$, $p < .01$, semipartial $r^2 = .03$, which was qualified by an interaction with the affirmation versus control contrast ($B = 0.24$, $SE = 0.12$), $F(1, 158) = 4.00$, $p = .05$, semipartial $r^2 = .02$.

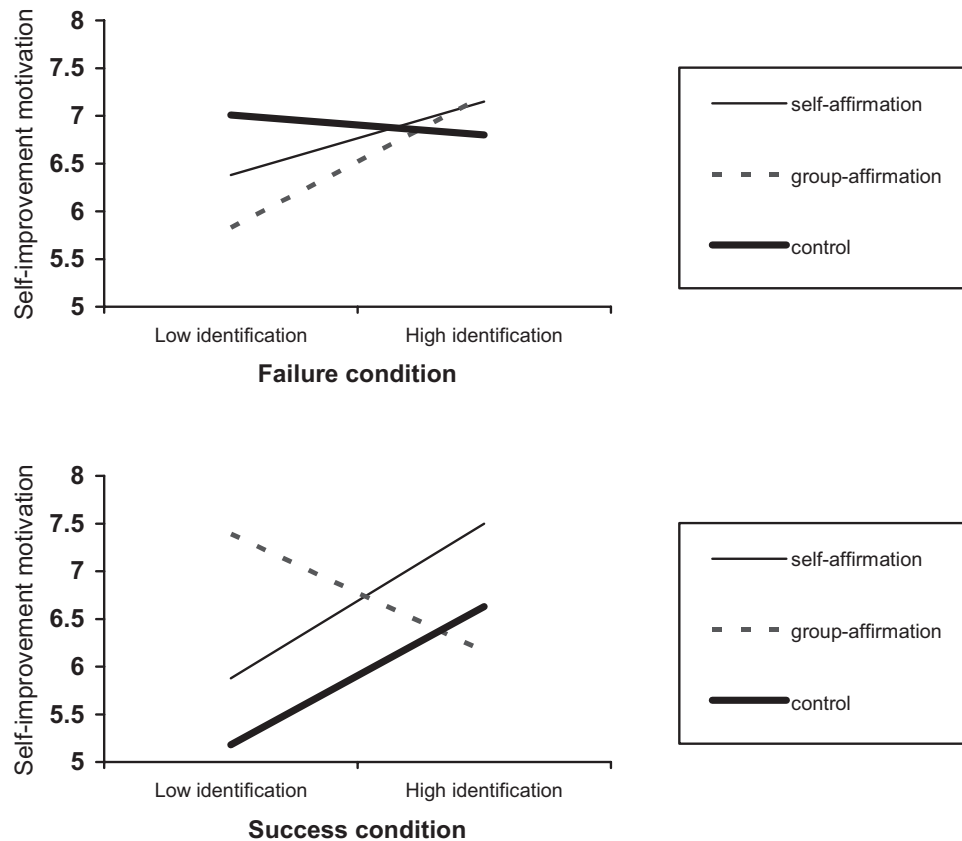


Figure 5. Self-improvement motivation in the failure and success conditions following self-affirmation, group affirmation, and control for participants with low (-1 SD) and high group identification ($+1$ SD) in Study 4.

affirmation led to significantly higher in-group-undermining individual mobility among high identifiers than among low identifiers ($B = 0.88$), $t(55) = 2.37$, $p = .02$. Moreover, high identifiers reported significantly more interest in this in-group-undermining behavior after self-affirmation than after group affirmation ($B = 1.60$), $t(56) = 2.71$, $p < .01$, or no affirmation ($B = 1.71$), $t(55) = 2.93$, $p < .01$.

Collective Action

Group-improvement motivation. We replicated the patterns found in Experiments 1 and 2 for group-improvement motivation. That is, group affirmation led to higher motivation among high identifiers than among low identifiers. Step 1 revealed significant main effects of group identification ($B = 0.52$, $SE = 0.10$), $F(1, 163) = 26.00$, $p < .001$, semipartial $r^2 = .13$, and feedback ($B = 0.21$, $SE = 0.10$), $F(1, 163) = 4.18$, $p = .04$, semipartial $r^2 = .02$. Step 2 revealed a significant two-way interaction of group identification with feedback type ($B = 0.21$, $SE = 0.11$), $F(1, 158) = 3.79$, $p = .05$, semipartial $r^2 = .02$. Although in Step 3 the three-way interaction between group identification, feedback type, and the self- versus group-affirmation contrast failed to reach significance ($B = -0.21$, $SE = 0.13$), $F(1, 156) = 2.41$, $p = .12$, semipartial $r^2 = .01$, we examined the interaction between group identification and affirmation level separately in the failure and success conditions. In the success condition group-improvement

motivation was predicted by group identification only ($B = 0.76$, $SE = 0.14$), $F(1, 75) = 30.04$, $p < .001$, semipartial $r^2 = .29$. In the failure condition, however, apart from a group identification main effect ($B = 0.32$, $SE = 0.15$), $F(1, 85) = 4.63$, $p = .03$, semipartial $r^2 = .05$, motivation to improve group performance was predicted by the interaction between group identification and the self- versus group-affirmation contrast ($B = 0.36$, $SE = 0.21$), $F(1, 83) = 2.97$, $p = .09$, semipartial $r^2 = .03$. As can be seen in Figure 6, low and high identifiers reported similar levels of motivation to improve group performance in the self-affirmation and control conditions. In the group-affirmation condition, however, high identifiers reported significantly more group-improvement motivation than low identifiers ($B = 0.78$), $t(56) = 2.76$, $p < .01$.

Willingness to engage in collective mobility. Results for measures of collective mobility intentions revealed that self-affirmation decreased interest in collective action for high identifiers. For low identifiers, however, self-affirmation actually increased collective action intentions. Step 1 revealed the predicted group identification effect ($B = 0.39$, $SE = 0.10$), $F(1, 163) = 16.39$, $p < .001$, semipartial $r^2 = .09$, indicating higher interest in collective action among high identifiers. Step 2 revealed a significant two-way interaction between group identification and feedback type ($B = 0.32$, $SE = 0.10$), $F(1, 158) = 10.60$, $p < .01$, semipartial $r^2 = .06$. These effects were qualified by the significant three-way interaction between

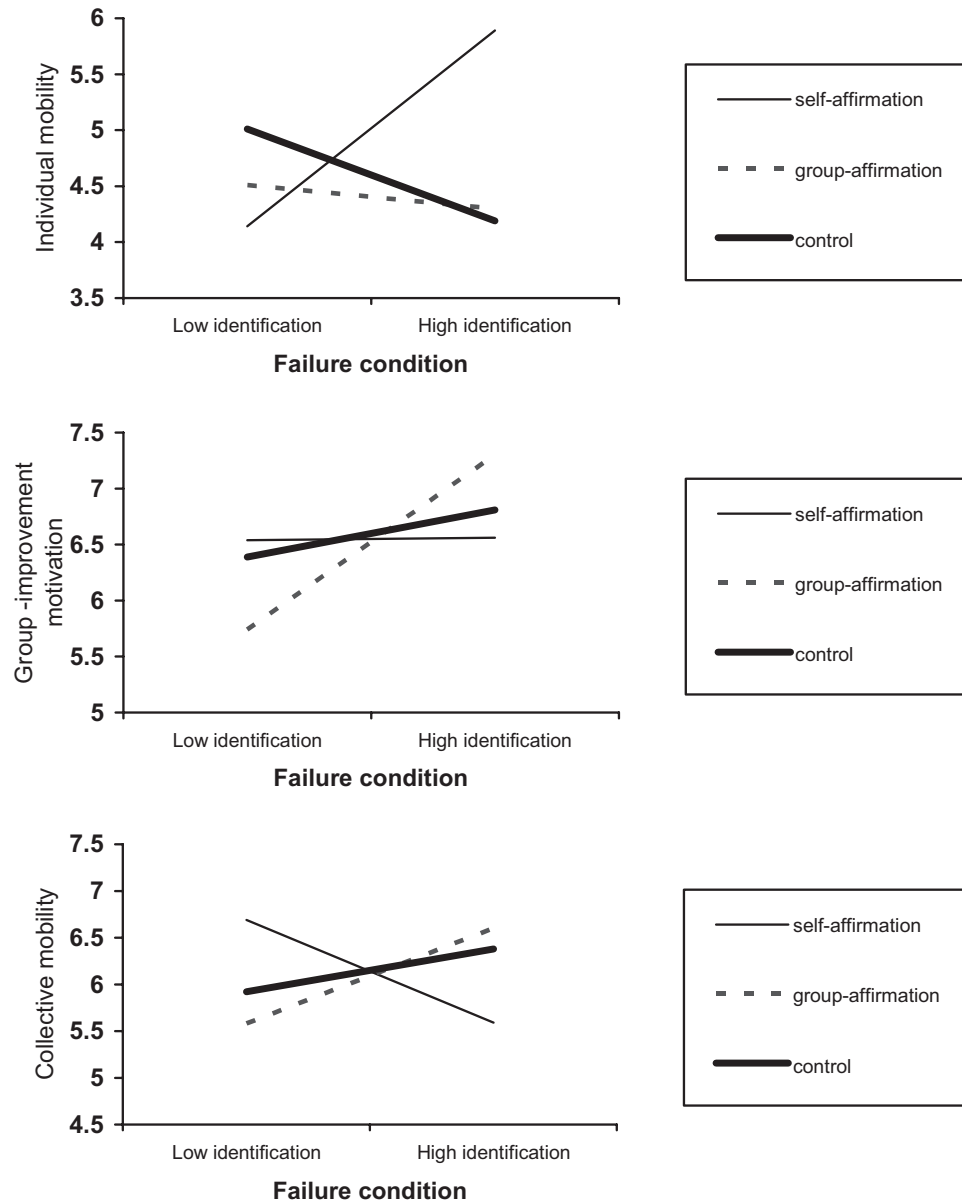


Figure 6. Interest in in-group-undermining individual mobility, group-improvement motivation, and interest in collective mobility in the failure conditions following self-affirmation, group affirmation, and control for participants with low (-1 SD) and high group identification ($+1$ SD) in Study 4.

group identification, feedback, and the self- versus group-affirmation contrast ($B = -0.30$, $SE = 0.12$), $F(1, 156) = 6.19$, $p = .01$, semipartial $r^2 = .03$. Again, in the success conditions interest in collective action was predicted by group identification only ($B = 0.70$, $SE = 0.14$), $F(1, 75) = 26.35$, $p < .001$, semipartial $r^2 = .26$. In the failure conditions, however, interest in collective action was predicted by the interactions between group identification and the self- versus group-affirmation contrast ($B = 0.53$, $SE = 0.18$), $F(1, 83) = 8.93$, $p < .01$, semipartial $r^2 = .09$. As can be seen in Figure 6, low and high identifiers reported similar interest in collective action in the control condition. Group affirmation restored the normal pat-

tern in which high identifiers show higher interest in collective action than low identifiers ($B = 0.51$), $t(56) = 2.14$, $p = .04$. Self-affirmation, however, disrupted this pattern and actually led to higher interest in collective mobility among low identifiers than among high identifiers ($B = -0.55$), $t(56) = -2.22$, $p = .03$. As a result, whereas high identifiers reported less interest in collective action following self-affirmation than following group affirmation ($B = -1.01$), $t(56) = -2.27$, $p = .03$, or control ($B = -0.79$), $t(55) = -1.93$, $p = .06$, low identifiers reported higher interest in collective action following self-affirmation than following group affirmation ($B = 1.11$), $t(56) = -2.40$, $p = .02$, or control ($B = 0.77$), $t(55) = -1.60$, $p = .12$.

Discussion

Study 4 replicates and extends the results found in Study 3. By including a condition in which women did not experience social identity threat, we showed that the effects of affirmation come into play only when people experience a threat to their social identity. When group members had just experienced in-group success, their willingness to work for their group was predicted only by how strongly they identified with this group. Of note, in the failure condition we replicated the results that were found in Study 3 on participants' interest in collective action versus in-group-undermining individual mobility. Moreover, by including a no-affirmation condition we were able to better interpret the effects of self- versus group affirmation on low and high identifiers of a low-status group. The results suggest that for high identifiers, it is not so much that group affirmation improves their collective action tendencies compared with a control condition, but rather that self-affirmation lowers these tendencies and leads to increased interest in in-group-undermining individual mobility compared with a control condition. Of interest, comparing low identifiers' collective action tendencies following self-affirmation with the no-affirmation condition revealed that for low identifiers self-affirmation actually increased their interest in collective mobility compared with group affirmation and control. Thus, allowing low identifiers to focus on their individual identity increases their willingness to work for their group.

General Discussion

The four studies reported in this article provide consistent support for our theoretical argument that self- and group affirmation differentially affect the direction of self-improvement motivation of members of a devalued group in status-relevant domains. First, all four experiments consistently showed that group affirmation relies on a different level of the self, namely, social identity instead of personal identity. This is evidenced in Study 1, where it was found that whereas self-affirmation increases the cognitive salience of the individual self, group affirmation increases the cognitive salience of the collective self. Furthermore, the studies show that the positive effects of group affirmation on well-being and performance motivation occur only among group members for whom their group membership is related to their overall self-concept.

Of note, Studies 3 and 4 revealed that although self- and group affirmation at first sight may seem equally effective in improving well-being and motivation in status-defining domains, they differentially affect *how* group members strive to achieve higher status: individually versus collectively. In previous research it was shown that providing highly identified group members with an opportunity to affirm their social identity increases their motivation to improve their personal outcomes (Derks et al., 2007b). The current research extends this finding by showing that group affirmation at the same time protects group members' willingness to engage in behavior that improves the position of the group as a whole. By contrast, when highly identified group members receive an opportunity to affirm their personal identity, their willingness to improve their group's status declines. This finding is important because improvements in the societal status of socially devalued groups is more likely to be achieved when group members focus not solely

on improving their individual outcomes but at the same time on collectively working to achieve better group outcomes.

Although individual upward mobility is often seen as providing the royal road toward achieving large-scale equal opportunity and social change, as we discussed there is ample reason to believe individual mobility is not sufficient. This is not to say that it is not important for individual group members to strive for high performance in status-defining domains. However, to achieve more widespread social change it is crucial that successful upwardly mobile members of stigmatized groups (ethnic minorities, women) remain concerned with the welfare of their group. When they are, they are more likely to serve as role models for other members of their group, and they will less likely be seen as the exception proving the rule that other members of the stigmatized group are not entitled to receive better outcomes. The current research shows that among highly identified group members, group affirmation improves the chances that group members will remain concerned with their group while being individually successful.

The results presented here thus reveal the social costs of addressing the plight of social groups by focusing—as has been emphasized in recent research—on the individual self (Ambady et al., 2004; Croizet, Desert, Dutrevis, & Leyens 2001; Martens et al., 2006) or on social identities other than the one that is threatened (Gresky, Ten Eyck, Lord, & McIntyre, 2005; Shih, Pittinsky, & Ambady, 1999). In order to change the current status differences between groups, it is important that low-status group members remain attached to their group membership, improving the chances that they will engage in efforts to improve the outcomes for their entire group and not only for themselves.

Group Affirmation and Categorization Threat

Although for highly identified group members group affirmation has advantages over self-affirmation, among low-identified group members group affirmation actually increased behavior that potentially undermines the in-group. Low identifiers are generally more inclined (compared with high identifiers) to endorse individual rather than collective mobility beliefs (Doosje et al., 1999; Spears et al., 1999). Additionally, the present research revealed that treating them as group members (group affirmation) rather than as individuals (self-affirmation) increased their tendency to engage in in-group-undermining individual mobility. Self-affirmation, on the other hand, was shown to improve collective behavior among low identifiers compared with group affirmation and a control condition. This pattern suggests that for low identifiers negative group feedback and group affirmation pose a categorization threat (Branscombe et al., 1999; Ellemers et al., 2002). Barreto and Ellemers (2003) distinguish between internal categorizations (how people see themselves) and external categorizations (how people are seen by others) and show that people are unwilling to work for a group in which they are categorized against their will. Moreover, neglecting an important part of an individual's identity while imposing an unwanted categorization leads individuals to emphasize the neglected identity (Barreto & Ellemers, in press). Accordingly, in the case of the low-identified participants in the experiments presented here, being treated as a member of a group to which they did not want to belong not only led them to feel less challenged and motivated in the status-defining domain, it also fostered their inclination to engage in in-group-undermining

individual mobility. However, allowing low identifiers to affirm their individual identity reduced categorization threat and made them more willing to work for collective status improvement.

Challenge Versus Threat

The third contribution of the research reported here is that it identifies the underlying process that explains why identity affirmation enables devalued group members to increase motivation in status-defining domains. When members of a devalued group affirm an important identity (i.e., personal identity for low identifiers and personal or social identity for high identifiers), this helps them to perceive an upcoming performance situation, in which they are to perform in a domain in which their group is negatively stereotyped, as a challenge. This challenge appraisal, in turn, motivates them to try to increase performance in a domain on which they have previously failed and on which their group is negatively stereotyped. By contrast, Study 2 showed that the degree to which participants reported being threatened did not predict their motivation in the status-defining domain. Thus, although threat and challenge are often conceptualized as two extremes of the same psychological continuum (Blascovich & Tomaka, 1996; Lazarus & Folkman, 1984), in this study self-report measures of the two concepts were differentially related to performance motivation.

We believe that the finding that challenge appraisals mediate the motivation of members of socially devalued groups offers a complementary route to social equality between low- and high-status groups in society (women and men, ethnic minorities and majorities, etc.). In essence, identity affirmation allows members of devalued groups to reappraise the obstacles that their group membership poses as challenges instead of threats, encouraging them to strive for their full potential in status-defining domains. This shows that whether or not identity threat lowers motivation among devalued group members, improving perceptions of resources to cope with this threat by affirming and boosting identity allows devalued group members to experience the positive challenge that helps them to confront social inequality and work toward status improvement. Although it has proved to be difficult to remove the chronic threats that low-status groups face in society (e.g., reducing negative stereotypes and discrimination), our results emphasize the important part that devalued group members can themselves play in the process toward social equality when they are challenged. When members of socially devalued groups are offered enough opportunities to affirm the value and worth of their group membership, they can become challenged to overcome the negative stereotypes that they are confronted with and will strive for social change.

Limitations and Suggestions for Further Research

Although in previous research we showed the beneficial effects of group affirmation on behavioral measures of persistence and performance (Derks et al., 2007b, Experiment 3), one limitation of the current studies is that we employed self-report rather than behavioral measures of performance motivation, individual mobility, and collective action. In future experimental and field research we should include behavioral indicators of self- and group-improvement motivation, to further underline the differential effects

of self- versus group affirmation for low and highly identified members of devalued groups.

Moreover, one question that deserves further study is how beneficial group affirmation actually is if it sparks interest in collective mobility among some group members while simultaneously amplifying interest in in-group-undermining upward mobility among others. We think, however, that in the real world, members of devalued groups are likely to search for identity affirmation when their identity is under threat and that self- or group affirmation is less likely to be imposed on them (as was the case in the experiments presented here). Real intergroup settings can offer both clues that affirm personal identity and clues that improve social identity, so that each group member should be able to find the type of information that best serves his or her own needs. Whereas low identifiers are more likely to search for self-affirmation, we would expect high identifiers to search for both. The important message that this research offers is that when the goal is to improve collective mobility among highly identified members of low-status groups, their search for identity affirmation should yield possibilities to affirm their social identity so that they do not have to resort to self-affirmation. Indeed, contexts that emphasize positive characteristics of low-status groups and communicate respect for these groups allow members of low-status groups to become challenged to reach their optimal potential without having to disidentify from their group (Derks et al., 2007a). This is also important because encouraging group members to neglect an identity that is important to them has been shown to lead to negative outcomes both for the individual (reduced health and psychological well-being; Barreto & Ellemers, in press; Berry, 1997) and for society (intergroup differentiation and conflict; Dovidio, Gaertner, & Validzic, 1998; Hornsey & Hogg, 2000).

Conclusions

In four experiments we showed that among members of devalued groups, personal and social forms of identity affirmation in an unrelated domain lead to high well-being and performance motivation in domains that define status in a social hierarchy. Moreover, we established that among group members who feel highly identified with the devalued group, group affirmation protects interest in behaviors that are aimed at improving group status. The results highlight the important benefits of enabling highly identified members of low-status groups to feel good about their group. That is, group affirmation not only allows members of devalued groups to personally reach optimal performance in the domains that define status in society, but also increases the chances that group members will collectively fight social inequality.

References

- Ambady, N., Paik, S. K., Steele, J., Owen Smith, A., & Mitchell, J. P. (2004). Deflecting negative self-relevant stereotype activation: The effects of individuation. *Journal of Experimental Social Psychology, 40*, 401–408.
- Aronson, J., Cohen, G., & Nail, P. R. (1999). Self-affirmation theory: An update and appraisal. In E. Harmon-Jones & J. Mills (Eds.), *Cognitive dissonance: Progress on a pivotal theory in social psychology* (pp. 127–147). Washington, DC: American Psychological Association.
- Barreto, M., & Ellemers, N. (2003). The effects of being categorised: The

- interplay between internal and external social identities. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 14, pp. 139–170). Hove, England: Psychology Press and Taylor & Francis.
- Barreto, M., & Ellemers, N. (in press). Multiple identities and the paradox of social inclusion. In F. Butera & J. M. Levine (Eds.), *Coping with minority status: Responses to exclusion and inclusion*. New York: Cambridge University Press.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review*, 46, 5–34.
- Blascovich, J., & Tomaka, J. (1996). The biopsychosocial model of arousal regulation. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 28, pp. 1–51). San Diego, CA: Academic Press.
- Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers & R. Spears (Eds.), *Social identity: Context, commitment, content* (pp. 35–58). Oxford, England: Blackwell Science.
- Cohen, G. L., Garcia, J., Apfel, N., & Master, A. (2006, September 1). Reducing the racial achievement gap: A social-psychological intervention. *Science*, 313, 1307–1310.
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 504–553). Boston: McGraw-Hill.
- Croizet, J. C., Desert, M., Dutrevis, M., & Leyens, J. P. (2001). Stereotype threat, social class, gender, and academic under-achievement: When our reputation catches up to us and takes over. *Social Psychology of Education*, 4, 295–310.
- Davies, P. G., Spencer, S. J., & Steele, C. M. (2005). Clearing the air: Identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of Personality and Social Psychology*, 88, 276–287.
- Derks, B., Van Laar, C., & Ellemers, N. (2006). Striving for success in outgroup settings: Effects of contextually emphasizing ingroup dimensions on stigmatized group members' social identity and performance styles. *Personality and Social Psychology Bulletin*, 32, 576–588.
- Derks, B., Van Laar, C., & Ellemers, N. (2007a). The beneficial effects of social identity protection on the performance motivation of members of devalued groups. *Social Issues and Policy Review*, 1, 217–256.
- Derks, B., Van Laar, C., & Ellemers, N. (2007b). Social creativity strikes back: Improving motivated performance of low status group members by valuing ingroup dimensions. *European Journal of Social Psychology*, 37, 470–493.
- Dijksterhuis, A., & Van Knippenberg, A. (2000). Behavioral indecision: Effects of self-focus on automatic behavior. *Social Cognition*, 18, 55–74.
- Doosje, B., Ellemers, N., & Spears, R. (1999). Commitment and intergroup behavior. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 84–106). Oxford, England: Blackwell.
- Dovidio, J. F., Gaertner, S. L., & Validzic, A. (1998). Intergroup bias: Status, differentiation, and a common in-group identity. *Journal of Personality and Social Psychology*, 75, 109–120.
- Ellemers, N. (2001). Individual upward mobility and the perceived legitimacy of intergroup relations. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations* (pp. 205–222). New York: Cambridge University Press.
- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, 53, 161–186.
- Ellemers, N., Van Den Heuvel, H., De Gilder, D., Maass, A., & Bonvini, A. (2004). The underrepresentation of women in science: Differential commitment or the queen bee syndrome? *British Journal of Social Psychology*, 43, 315–338.
- Ellemers, N., & Van Laar, C. (in press). Individual mobility: The opportunities and challenges members of devalued groups encounter when trying to avoid group-based discrimination. In J. Dovidio, M. Hewstone, P. Glick, & V. Esses (Eds.), *Handbook of prejudice and discrimination*. London, England: Sage.
- Gresky, D. M., Ten Eyck, L. L., Lord, C. G., & McIntyre, R. B. (2005). Effects of salient multiple identities on women's performance under mathematics stereotype threat. *Sex Roles*, 53, 703–716.
- Guimond, S., Dif, S., & Aupy, A. (2002). Social identity, relative group status and intergroup attitudes: When favorable outcomes change intergroup relations . . . for the worse. *European Journal of Social Psychology*, 32, 739–760.
- Harris, P. R., & Napper, L. (2005). Self-affirmation and the biased processing of threatening health-risk information. *Personality and Social Psychology Bulletin*, 31, 1250–1263.
- Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology*, 72, 515–525.
- Hornsey, M. J., & Hogg, M. A. (2000). Assimilation and diversity: An integrative model of subgroup relations. *Personality and Social Psychology Review*, 4, 143–156.
- Kashima, E. S., Kashima, Y., & Hardie, E. A. (2000). Self-typicality and group identification: Evidence for their separateness. *Group Processes and Intergroup Relations*, 3, 97–110.
- Koole, S. L., Smeets, K., Van Knippenberg, A., & Dijksterhuis, A. (1999). The cessation of rumination through self-affirmation. *Journal of Personality and Social Psychology*, 77, 111–125.
- Kuiper, N. A., McKenzie, S. D., & Belanger, K. A. (1995). Cognitive appraisals and individual differences in sense of humor: Motivational and affective implications. *Personality and Individual Differences*, 19, 359–372.
- Kurman, J. (2003). The role of perceived specificity level of failure in self-enhancement and in constructive self-criticism. *Personality and Social Psychology Bulletin*, 29, 285–294.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302–318.
- Major, B., & Schmader, T. (1998). Coping with stigma through psychological disengagement. In J. K. Swim & C. Stangor (Eds.), *Prejudice: The target's perspective* (pp. 219–241). San Diego, CA: Academic Press.
- Martens, A., Johns, M., Greenberg, J., & Schimel, J. (2006). Combating stereotype threat: The effect of self-affirmation on women's intellectual performance. *Journal of Experimental Social Psychology*, 42, 236–243.
- McFarlin, D. B., & Blascovich, J. (1984). On the remote associates test (RAT) as an alternative to illusory performance feedback: A methodological note. *Basic and Applied Social Psychology*, 5, 223–229.
- Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89, 852–863.
- Osborne, J. W. (1997). Race and academic disidentification. *Journal of Educational Psychology*, 89, 728–735.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31, 437–448.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rubin, M., & Hewstone, M. (1998). Social identity theory's self-esteem hypothesis: A review and some suggestions for clarification. *Personality and Social Psychology Review*, 2, 40–62.
- Schmader, T., Major, B., Eccleston, C. P., & McCoy, S. K. (2001). Devaluing domains in response to threatening intergroup comparisons: Perceived legitimacy and the status value asymmetry. *Journal of Personality and Social Psychology*, 80, 782–796.

- Sherman, D. K., & Cohen, G. L. (2002). Accepting threatening information: Self-affirmation and the reduction of defensive biases. *Current Directions in Psychological Science*, 11, 119–123.
- Sherman, D. K., Kinias, Z., Major, B., Kim, H. S., & Prenovost, M. (2007). The group as a resource: Reducing biased attributions for group success and failure via group affirmation. *Personality and Social Psychology Bulletin*, 33, 1100–1112.
- Shih, M., Pittinsky, T. L., & Ambady, N. (1999). Stereotype susceptibility: Identity salience and shifts in quantitative performance. *Psychological Science*, 10, 80–83.
- Spears, R., Doosje, B., & Ellemers, N. (1999). Commitment and the context of social perception. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 59–83). Oxford, England: Blackwell.
- Spencer, S. J., Fein, S., & Lomore, C. D. (2001). Maintaining one's self-image vis-à-vis others: The role of self-affirmation in the social evaluation of the self. *Motivation and Emotion*, 25, 41–65.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). San Diego, CA: Academic Press.
- Steele, C. M., & Liu, T. J. (1983). Dissonance processes as self-affirmation. *Journal of Personality and Social Psychology*, 45, 5–19.
- Swim, J. K., & Stangor, C. (Eds.). (1998). *Prejudice: The target's perspective*. San Diego, CA: Academic Press.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *The psychology of intergroup relations* (pp. 7–24). Chicago: Nelson-Hall.
- Tesser, A., & Cornell, D. P. (1991). On the confluence of self processes. *Journal of Experimental Social Psychology*, 27, 501–526.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. New York: Basil Blackwell.
- Van Laar, C., & Sidanius, J. (2001). Social status and the academic achievement gap: A social dominance perspective. *Social Psychology of Education*, 4, 235–258.
- Wright, S. C. (2001a). Restricted intergroup boundaries: Tokenism, ambiguity, and the tolerance of injustice. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations* (pp. 223–254). New York: Cambridge University Press.
- Wright, S. C. (2001b). Strategic collective action: Social psychology and social change. In R. Brown & S. Gaertner (Eds.), *Intergroup processes* (pp. 409–431). Oxford, England: Blackwell.
- Wright, S. C., & Taylor, D. M. (1999). Success under tokenism: Co-option of the newcomer and the prevention of collective protest. *British Journal of Social Psychology*, 38, 369–396.

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Call for Nominations: *Psychology of Violence*

The Publications and Communications (P&C) Board of the American Psychological Association has opened nominations for the editorship of *Psychology of Violence*, for the years 2011–2016. The editor search committee is chaired by William Howell, PhD.

Psychology of Violence, to begin publishing in 2011, is a multidisciplinary research journal devoted to violence and extreme aggression, including identifying the causes and consequences of violence from a psychological framework, finding ways to prevent or reduce violence, and developing practical interventions and treatments.

As a multidisciplinary forum, *Psychology of Violence* recognizes that all forms of violence and aggression are interconnected and require cross-cutting work that incorporates research from psychology, public health, neuroscience, sociology, medicine, and other related behavioral and social sciences. Research areas of interest include murder, sexual violence, youth violence, inpatient aggression against staff, suicide, child maltreatment, bullying, intimate partner violence, international violence, and prevention efforts.

Editorial candidates should be members of APA and should be available to start receiving manuscripts in early 2010 to prepare for issues published in 2011. Please note that the P&C Board encourages participation by members of underrepresented groups in the publication process and would particularly welcome such nominees. Self-nominations are also encouraged.

Candidates should be nominated by accessing APA's EditorQuest site on the Web. Using your Web browser, go to <http://editorquest.apa.org>. On the Home menu on the left, find "Guests." Next, click on the link "Submit a Nomination," enter your nominee's information, and click "Submit."

Prepared statements of one page or less in support of a nominee can also be submitted by e-mail to Emnet Tesfaye, P&C Board Search Liaison, at Emnet@apa.org.

Deadline for accepting nominations is January 31, 2009, when reviews will begin.